REMARKS

In the Office Action mailed January 27, 2006, the Examiner took the following action: (1) rejected claims 38, 44, and 45 under 35 U.S.C. §103(a) as being unpatentable over Pike et al. (U.S. 4,979,588) in view of Milner (U.S. 3,670,849); and (2) rejected claims 23-27 under 35 U.S.C. §103(a) as being unpatentable over Stone (U.S. 2004/0094077) in view of Baldas et al. (U.S. 2002/0074186). The Examiner acknowledged that claims 1-5, 7-15, 17-22, 28-37, 41, and 43 are allowed, and that claims 39, 40, and 46-48 would be allowable if rewritten to include the limitations of their respective base and intermediate claims. Applicants respectfully request reconsideration of the application in view of the foregoing amendments and the following remarks.

I. Rejections of claims 38, 44, and 45 under 35 USC § 103(a)

Claims 38, 44, and 45 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pike et al. (U.S. 4,979,588) in view of Milner (U.S. 3,670,849).

Claim 38

Claim 38 recites:

> A method for controlling a lift device, comprising:
> providing a sensor module adapted to monitor a plurality of scanning regions proximate the lift device for the presence of an approaching object and to detect the approaching object *prior to physical contact with the approaching object*, wherein at least two of the scanning regions are approximately orthogonally disposed relative to each other; and
> monitoring the plurality of scanning regions for an approaching object;
> moving at least a portion of the lift device using a drive assembly;
> detecting an approaching object within at least one of the scanning regions proximate to the lift device; and
> interrupting the operation of the drive assembly in response to the detection of the approaching object. (emphasis added).

Pike (U.S. 4979588)

Pike teaches an overhead impact sensing system. More specifically, Pike teaches a pair of bar members 44, 46 that project upwardly from a moveable central platform 22. (3:28-34; Figs. 1-3). Each bar member 44, 46 is coupled to a support mount 58, 60 that includes a switch 92 (3:44-46, 4:10-20; Figs. 2-4). In operation, as the platform 22 is moved upwardly, the bar members 44, 46 may physically contact an overhead obstruction, causing the switches 92 to move to an "open circuit" condition and automatically stop upward movement of the platform 22. (1:68-2:6; 4:29-55; 5:50-58).

Pike fails to disclose, teach, or fairly suggest the method recited in claim 38. More specifically, Pike fails to teach or fairly suggest a method that includes providing a sensor module adapted to ... detect the approaching object *prior to physical contact with the approaching object*. Pike necessarily requires physical contact between the overhead obstruction and the bar members 44, 46 in order to detect the overhead obstruction. There is no teaching or suggestion in Pike to detect the approaching object prior to physical contact with the approaching object as recited in claim 38.

Milner (U.S. 3670849)

Similarly, Milner fails to teach or suggest the above-noted absent teachings of Pike. Milner teaches a platform 15 having a proximity sensing system 40 that includes inflatable bumpers 41, 42. (3:67-75). In operation, when the bumpers 41, 42 physically contact an approaching object, the pressure within the bumpers 41, 42 increases, causing switches 58, 59 to disengage the power from the drive assembly of the platform 15. (5:6-12; Abstract). Thus, there is no teaching or suggestion in Milner of a method that includes providing a sensor module adapted to ... detect the approaching object *prior to physical contact with the approaching object* as recited in claim 38.

Claims 44 and 45

Claim 44 recites:

> An apparatus, comprising:
> a lift device including a drive assembly;
> at least one sensor module operatively coupled to the lift device, the sensor module being adapted to monitor a plurality of scanning regions proximate the lift device for the presence of an approaching object and to detect the approaching object *prior to physical contact with the approaching object*, wherein at least two of the scanning regions are approximately orthogonally disposed relative to each other; and
> a controller operatively coupled to the sensor module and operatively coupled to the drive assembly, the controller being adapted to interrupt operation of the drive assembly in response to a detection signal from the sensor module. (emphasis added).

As described above, Pike and Milner, either singly or in combination, fail to disclose, teach, or fairly suggest the apparatus recited in claim 44. More specifically, the combination of Pike and Milner fails to teach or fairly suggest an apparatus that includes at least one sensor module adapted to ... detect the approaching object *prior to physical contact with the approaching object.* Pike necessarily requires physical contact between the overhead obstruction and the bar members 44, 46 in order to detect the overhead obstruction. Similarly, Milner required physical contact with the bumpers 41, 42 to detect the approaching object. Therefore, the combined teachings of Pike and Milner fail to teach or fairly suggest the apparatus recited in claim 44.

Claim 45 depends from claim 44 and is allowable over Pike and Milner for the same reasons as claim 44 and also due to additional limitations recited in this claim. For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 38, 44 and 45.

II. Rejections of claims 23-27 under 35 USC § 103(a)

Claims 23-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Stone (U.S. 2004/0094077) in view of Baldas et al. (U.S. 2002/0074186).

Claims 23-27

Claim 23 recites:

A system, comprising:
a moveable platform having a drive assembly;
a module coupled to the platform and including a plurality of sensors, the plurality of sensors including:
at least one first sensor configured to sense objects proximate to the system;
at least one through-beam receiver configured to receive a light beam that may be interrupted by the proximity of objects; and
at least one through-beam emitter configured to emit a light beam that may be interrupted by objects proximate to the module;
a controller operatively coupled to the module and to the drive assembly, the controller configured to interrupt operation of the drive assembly in response to a detection signal from the module; and
a display coupled to the drive assembly and configured to indicate a presence of the object proximate to the lift device, and further configured to indicate a direction drive assembly will move the platform if activated. (emphasis added)

Stone (U.S. 2002/0094077)

Stone teaches a lift table having a stationary base and a moveable table platform coupled to the base. A toe sensor 20 is coupled to the base 16. When a user's foot or other foreign object contacts the sensor 20, downward movement of the table platform is disabled, thereby avoiding a possible injury.

Stone fails to disclose, teach, or fairly suggest the system recited in claim 23. Specifically, Stone fails to teach or fairly suggest a system that includes *a display coupled to the drive assembly and configured to indicate a presence of the object proximate to the lift device, and further configured to indicate a direction drive assembly will move the platform if activated.* Stone fails to teach or fairly suggest a system that includes a module coupled to the platform and including a plurality of sensors, the plurality of sensors including: at least one first sensor configured to sense objects proximate to the system; at least one through-beam receiver configured to receive a light beam that may be interrupted by the proximity of objects; and at least one through-beam emitter configured to emit a light beam that may be interrupted by objects proximate to the module. Therefore, claim 23 is allowable over Stone.

Baldas (U.S. 2002/0074186)

Baldas does not remedy the above-noted absent teachings of Stone. Baldas teaches that an "aerial work platform 200 may be provided with a conventional stop mechanism to stop motion of the work platform 100 when the work platform 100 approaches or contacts another structure," and that the stop mechanism "may be, for example and without limitation, an ultrasonic transceiver, a contact sensor, an infrared transceiver, a radar unit, etc." There is no teaching or suggestion in Baldas, however, of a system that includes *a display coupled to the drive assembly and configured to indicate a presence of the object proximate to the lift device, and further configured to indicate a direction drive assembly will move the platform if activated* as recited in claim 23. Therefore, claim 23 is allowable over the combined teachings of Stone and Baldas.

Stone also fails to teach or fairly suggest a system that includes a module coupled to the platform and including a plurality of sensors, the plurality of sensors including: at least one first sensor configured to sense objects proximate to the system; at least one through-beam receiver

configured to receive a light beam that may be interrupted by the proximity of objects; and at least one through-beam emitter configured to emit a light beam that may be interrupted by objects proximate to the module. Therefore, for this additional reason, claim 23 is allowable over the combined teachings of Stone and Baldas.

Claims 24-27 depend from claim 23 and are allowable over Stone and Baldas for the same reasons as claim 23 and also due to additional limitations recited in these claims. For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 23-27.

CONCLUSION

For the foregoing reasons, Applicants respectfully submit that claims 1-5, 7-15, 17-41, and 43-48 are in condition for allowance. If there are any remaining matters that may be handled by telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

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By: Dale C. Barr

Dale C. Barr
Lee & Hayes, PLLC
Reg. No. 40,498
(206) 315-7916